### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-010143 Address: 333 Burma Road **Date Inspected:** 11-Nov-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Xu Yumin **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Segments

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

**OBG Trial Assembly Yard** 

Segment 5CE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG026C-015, 013. The welder is identified as #220063 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-FCAW-3G (3F)-Repair-1 for WR8415.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as CA024-001. The welder is identified as #220063 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2232-TC-U4b-F.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as CA025-001. The welder is identified as #220067 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2232-TC-U4b-F.

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### Segment 6AE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG028D-013. The welder is identified as #220067 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-TC-U4b-F-1.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as CA026-005. The welder is identified as #220063 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2232-TC-U4b-F.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as SEG028B-030. The welder is identified as #220067 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2232-TC-U4b-F.

This QA Inspector observed the Side Plate to Bottom Plate CJP splice weld was cut for approximately 980mm on the cross beam side at the 6AE/6BE splice location.

### Segment 6AW

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing (MT) on the Floor Beam Diaphragm to Deck Plate and U-rib connection at panel point 38.

This QA Inspector observed beveling of the Side Plates, Bottom Plate and Deck Plate with the use of a mechanically guided torch along the 5CW/6AW field splice location.

#### Segment 5BW/5CW

This QA Inspector observed grinding of the cope holes of the WT Stiffener web splice at the Bottom Plate segment Splice.

ZPMC Quality Control (QC) Inspector is identified as Wang Li Yang. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

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Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer